

Claims

[1] A planar optical member comprising a single or multiple layers, wherein both surfaces and/or end surfaces of at least one of the layers constituting the optical member is coated with a moisture proof layer made of a material having lower vapor permeability than that of said one of the layers.

[2] The optical member according to Claim 1, wherein the optical member is a light diffusive plate made of synthetic resin, and both surfaces and/or end surfaces of the light diffusive plate are provided with a moisture proof layer made of a material having lower vapor permeability than that of the light diffusive plate.

[3] The optical member, wherein the optical member is a light guide plate made of synthetic resin having at least one end as a light incident surface, and the surface almost orthogonal with the light incident surface as a light emergent surface, and both surfaces and/or end surfaces of the light guide plate are provided with a moisture proof layer made of a material having lower vapor permeability than that of the light guide plate.

[4] The optical member according to Claim 1, wherein the optical member is an optical sheet for backlight.

[5] The optical member according to Claim 1, wherein the optical member is an optical member for backlight having a functional layer on a synthetic resin substrate, and both surfaces and/or end surfaces of the substrate are provided with a moisture proof layer made of a material having lower vapor permeability than that of the substrate.

[6] The optical member according to Claim 4, wherein the optical member is selected from a prism sheet, light diffusive film, light reflecting film, polarizing film, reflective polarizing film, retardation film and electromagnetic interference (EMI) shielding film.

[7] The optical member according to Claim 4, wherein the moisture proof layer made of the low vapor permeable material is formed on the outermost surface of the optical member for backlight.

[8] The optical member according to any one of Claim 1 to 7, wherein the vapor permeability of the moisture proof layer made of the low vapor permeable material is not more

than 15[g/(m² × 24 hours)].

[9] The optical member according to any one of Claims 1 to 7, wherein the low vapor permeable material comprises one or more inorganic metal compounds selected from oxides or halides of silicon, aluminum, titanium, selenium, magnesium, barium, zinc, tin, indium, calcium, tantalum, zirconium, thorium and thallium.

[10] The optical member according to Claim 9, wherein the inorganic metal compound is silica.

[11] The optical member according to any one of Claims 1 to 7, wherein the low vapor permeable material comprises one ore more types of synthetic resin selected from vinylidene chloride - vinyl chloride copolymer, vinylidene chloride - acrylonitrile copolymer, vinylidene chloride - acrylic copolymer, biaxially oriented polypropylene(OPP), non oriented polypropylene(CPP), cyclic polyolefin, polychloro trifluoro ethylene(PCTFE), tetrafluoroethylene - hexafluoropropylene copolymer (FEP) and tetrafluoroethylene - perfluoroalkyl vinylether copolymer (PFA).

[12] The optical member according to Claim 11, wherein the synthetic resin is vinylidene chloride - acrylonitrile copolymer.

[13] A backlight comprising a light source and a light diffusive plate placed over the light source, wherein the backlight is the light diffusive plate according to Claim 2.

[14] The backlight according to Claim 13, wherein the light diffusive plate is provided with one or more types of optical members on the surface opposite to the light source.

[15] The backlight according to Claim 14, wherein the optical member is the optical member according to Claim 1.

[16] A backlight comprising a light guide plate and a light source placed on at least one end of the light guide plate, wherein the light guide plate according to Claim 3 is used as the light guide plate.

[17] The backlight, wherein one or more types of optical member is placed on the light emergent surface and/or the surface opposite to the light emergent surface of the light guide plate.

[18] The backlight according to Claim 17, wherein the optical member is the optical member according to Claim 1.

[19] A backlight comprising a light source and a light diffusive plate placed over the light source, wherein one or more optical members for backlight according to any one of Claims 4 to 12 are provided inside the backlight.

[20] A backlight comprising a light guide plate and light sources placed on at least one end of the light guide plate, wherein one or more optical members for backlight according to any one of Claims 4 to 12 are provided inside the backlight.